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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,605	12/29/2003	Cheryl J. Brickey	86683PAL	6529

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EXAMINER

BUI-PHO, PASCAL M

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/747,605

Applicant(s)

BRICKEY ET AL.

Examiner

Pascal M. Bui-Pho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, components claimed in claims 1, 10-25, and 27 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **36** (Figure 4) and **69** (Figure 5). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to

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the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: spelling and/or grammatical errors have been identified on Page 4, lines 26, 29; Page 5, line 5; Page 6, line 18; Page 10, line 15; and Page 12, lines 14, 17, 25.

Appropriate correction is required.

Claim Objections

4. Claims 4 and 26 are objected to because of the following informalities: the bending stiffness and density claimed in claims 4 and 26 respectively, lack units of measurement.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 1, 6, 10, 11, 13, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Legg et al. (US 5,932,847).

With regards to claim 1, Legg et al. disclose a timing device (100) comprising an indicator device (Figure 1) and a detector device (112, 114, 202) wherein said indicator device comprises a light-emissive element (304) and a patterning layer (110).

With regards to claim 6, Legg et al. disclose a timing device wherein said detector is sensitive to the wavelength of light emitted by said light-emissive element.

With regards to claim 10, Legg et al. disclose a timing device wherein said detector comprises of more than one sensor (140, 112, 114, 202).

With regards to claim 11, Legg et al. disclose a timing device wherein said detector moves relative to said indicator device (Column 5).

With regards to claim 13, Legg et al. disclose a timing device wherein the timing device is provided with a shield (302) that only allows the detector to receive light from a small portion of said indicator device.

With regards to claim 18, Legg et al. disclose a timing device wherein said indicator element is in a disk (102).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 2-5, 7-9, 12, 14-16, 19-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Legg et al. (US 5,932,874).

With regards to claims 2 and 3, Legg et al. fail to specify whether or not the emissive element comprising an electroluminescent material and organic light-emitting diodes. Selecting a specific type of an emissive element or light source in an optical system would have been obvious to one of ordinary skill in the art in order to provide a long lasting life of the light source. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the aforementioned U.S. patent accordingly in order to improve the system's light modulation and cost-efficiency.

With regards to claims 4, 5, 26, 28, and 29, Legg et al. fail to specify an indicator having specific ranges for its bending stiffness, bending radius, and angles of view. Selecting a preferred range of utilization for optimal performance would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the aforementioned U.S. patent accordingly in order to increase the efficiency of the system. The further inclusion of a patterning layer having a specific range of density for its pattern areas would have been obvious for similar reasons set forth above.

With regards to claims 7 and 8, Legg et al. lack an inclusion of a light-emissive element wherein the light-emissive element emits light in pulses. Selecting a particular method of emitting light would have been obvious to one of ordinary skill in the art in order to provide a specific pattern of emitting light. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the aforementioned U.S. patent accordingly in order to provide more protection for any possible spurious interference for the detector of the system.

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The further inclusion of a light-emissive element wherein the light-emissive element emits light from pixels would have been obvious for similar reasons set forth above.

With regards to claim 9, Legg et al. lack an inclusion of a light-emissive element wherein the light-emissive element emits light in greater than 1 wavelength and wherein a detector is capable of sensing more than 1 wavelength. Selecting a particular method of emitting and detecting light for providing a desired manner of optical modulation would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the aforementioned U.S. patent accordingly in order to increase the system's output and efficiency.

With regards to claim 12, although Legg et al. lack an inclusion of a relative movement of the indicator device, selecting an alternate movement between two elements/components to provide a positional relationship would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Legg et al. accordingly in order to provide an easier optical alignment between the indicator device and the detector of the system.

With regards to claim 14, Legg et al. fail to disclose a timing device comprising a light focusing or directing lenses. The use of optics elements for focusing and/or directing light in an optical system would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Legg et al. accordingly in order to provide more control to the modulation of the optical signals of the system.

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With regards to claims 15, 16, and 19, Legg et al. fail to specify an indicator element wherein the shape of said indicator element is arcuate and/or tubular. Selecting a particular shape or design for performing similar functions would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the aforementioned U.S. patent accordingly in order to provide a more compact design for the system. The further inclusion of an indicator element wherein the indicator element is in a strip would have been obvious for similar reasons set forth above.

With regards to claims 20-25 and 27, Legg et al. fail to specify a specific technique and/or material to form the patterning layer. Selecting a particular material and/or manner for performing similar functions would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the aforementioned U.S. patent accordingly in order to provide a desired quality of the design of the system, if so desired.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pascal M. Bui-Pho whose telephone number is (571) 272-2714. The examiner can normally be reached on Monday through Friday: 8:30 a.m. - 5:00 p.m..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pascal M. Bui-Pho
Examiner
Art Unit 2878

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